The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte Michael Levi

Appeal No. 2003-0013
Application No. 09/569,539

ON BRIEF

Before ABRAMS, STAAB and NASE, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1-6, all the claims currently pending in the application.

Appellant's invention pertains to a swinging seat suspended from a pair of suspension members each of which includes a coil spring having two or more different zones providing two or more different initial spring constants. As further explained in the paragraph spanning pages 1-2 of the specification:

> A first zone of the spring provides a relatively low initial spring constant so that the springs are sufficiently stretched to provide the desired amount of bounce or springiness to the seat when a person of relatively low weight such as a child is sitting on the seat. The second zone provides a relatively high initial spring constant so that when a heavier person, or more than one person, sits on the seat the total elongation of the spring is significantly less than it would be if the entire spring had the spring constant of the first zone. Accordingly, the springs provide a desired amount of stretch and springiness for a much wider range of weights supported on the seat than a conventional spring having a single spring constant.

A copy of the appealed claims appears in the appendix to appellant's main brief.

The references relied upon by the examiner as evidence of obviousness are:

Boudreau	5,004,216	Apr. 2, 1991
Ayrolles	5,564,987	Oct. 15, 1996

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ayrolles in view of Boudreau.

Reference is made to appellant's main and reply briefs (Paper Nos. 13 and 15) and to the examiner's answer (Paper No. 14) for the respective positions of appellant and the examiner regarding the merits of this rejection.

Discussion

Ayrolles, the examiner's primary reference, discloses a swinging seat with resilient suspension comprising a seat 6 for

supporting one or more persons and a pair of suspension members 7 for suspending the seat therefrom, with each suspension member including a coil spring 8 imparting resilience to the suspension member. The examiner concedes that Ayrolles does not disclose the specifics of the coil springs set forth in the last paragraph of claim 1, the sole independent claim on appeal, which calls for each coil spring to define first and second zones of differing initial spring constant, with the first zone being formed of coils providing a first initial spring constant when the coils are initially stretched, and with the second zone being formed of coils providing a second initial spring constant substantially greater than the first initial spring constant when the coils are initially stretched. The examiner turns to Boudreau for a teachings of this claim limitation.

Boudreau pertains to children's bouncers and similar spring-mounted toys, and more particularly to a spring connection assembly for such toys. As explained in the "Background" section of Boudreau's specification, prior art bouncers were found to be deficient in that they exhibited somewhat uneven bouncing characteristics due to the way the ends of the suspension springs were connected to the toy and the toy support, and in that the ends of the suspension springs could become detached from their

corresponding mounting points so that the seating platform is no longer suspended in a stable manner. In an effort to overcome these deficiencies, Boudreau redesigned the mounting means for connecting the inboard ends of the springs. With reference to Figures 1-4, Boudreau explains that

> [e]ach assembly includes a barrel-shaped coil spring [46] whose outboard end is hooked in a conventional way to an eye [52] mounted to the support. However, the hook at the inboard end of each spring is hooked to a special bracket [56] swivelingly engaged to the adjacent post [32] projecting from the side of the horse. Each bracket forms an eye [62] which lies in a plane parallel to the post and, as noted above, the bracket can pivot or swivel about the post axis so that the inboard end of the spring connected thereto can swing freely about the post axis no matter how the spring is hooked to the bracket or to the support. Since the inboard ends of all of the springs supporting the horse are permitted to swing to the same extent relative to the projecting post to which they are connected, the bouncing motion of the horse is much more uniform than is the case with the conventional spring-supported bouncing toys described at the outset.
>
> Also included at the inboard end of each spring is a special safety clip [72] which plugs into the end of the spring coil. The clip includes a hook [72a] which projects from the end of the coil which is arranged to hook onto the bracket [56] in the opposite direction from the hook formed at that end of the spring. In other words, the spring hook and the clip hook together form a closed ring which prevents the inboard end of that spring from becoming detached from its bracket no matter how vigorously the horse may be bounced by a child thereon. [Boudreau, col. 2, lines 34-63].

The examiner finds that Boudreau teaches a spring connection assembly "including a plurality of barrel shaped springs (46), each

spring (46) [having] first and second zones of differing initial spring constant due to its barrel shape[]. . . .” (answer, page 3). The examiner concludes that “[t]herefore, it would have been obvious to one of ordinary skill in the art to modify the springs (8) of Ayrolles with the barrel shaped springs (46) of Boudreau for the advantage of allowing the seat to support a wide range of weights and swinging motions of the seat” (answer, page 3).

Like appellant, we consider that the examiner’s position is not well founded. First, while it may be true that the Ayrolles swing *could* be modified as proposed by the examiner to provide barrel shaped springs therein, the examiner has identified no cogent reason in the collective teachings of the applied references that suggests the desirability, and thus the obviousness, of such a modification. *See In re Mills,* 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed Cir. 1990); *In re Gordon,* 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) (“The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification.”). In our view, the only suggestion for modifying Ayrolles in the manner proposed by the examiner stems from impermissible hindsight knowledge derived from appellant’s own disclosure. This constitutes a first reason necessitating reversal

of the examiner's rejection of independent claim 1, as well as claims 2-6 that depend therefrom.

Furthermore, we do not agree with the examiner's position to the effect that the barrel shaped springs of Boudreau would necessarily have a first zone formed by coils providing a first initial spring constant and a second zone formed by coils providing a second initial spring constant that is *substantially greater than* the first initial spring constant, as called for in the last paragraph of claim 1, simply because of their barrel shape. In that regard, it is well settled that inherency may not be established by probabilities or possibilities, but must instead by "the natural result flowing from the operation as taught." *See In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981). As we see it, the examiner's conclusion that Boudreau's springs would have the characteristics called for in the last paragraph of claim 1 "due to [their] barrel shape[]" (answer, page 3) is speculative. Thus, even if we were to agree with the examiner that it would have been obvious to provide barrel shaped spring in Ayrolles in view of Boudreau, the subject matter of claim 1 would not result. This constitutes an additional reason necessitating reversal of the examiner's rejection of the appealed claims.

For the above reasons, the decision of the examiner is reversed.

REVERSED

NEAL E. ABRAMS Administrative Patent Judge	)	
LAWRENCE J. STAAB Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)	

LJS:svt

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